

WVMEP E3 IN WV GL BISER

What is the WVMEP?

- WVMEP is a non-profit manufacturing consulting corporation working in conjunction with and supported by West Virginia University's Statler College of Engineering and Mineral Resources and the West Virginia Development Office and an affiliate of the national Manufacturing Extension Partnership Program.
- The mission of the WVMEP is to help West Virginia manufacturers and other organizations to enhance their competitiveness through application of technology, improved productivity, cost reduction and market expansion.

What is E3?

- **A model for collaboration among manufacturers, utilities, local government, and federal resources intended to:**
 - Invest in local communities
 - Address energy and sustainability challenges
 - Reduce energy use and carbon footprint
 - Provide valuable technical training and assessments
 - Enable economic growth

What is an E3 Assessment?

- Energy Use Assessment
- Lean Process Assessment
- Carbon Footprint calculation
- Overview of current energy usage and cost for each system
- Low cost, easy to implement changes to reduce use or cost
- Recommendations for long term, capital investment to further reduce in cost and use

Energy Assessment

- **All systems that consume electric, natural gas, propane, fuel oil, and all other types of fuel or energy.**
- Lighting systems
- Motors and drives
- Compressed air systems
- Steam systems, boilers
- Fans and HVAC systems
- Pump systems
- Hydraulic systems
- Refrigeration systems
- Building envelope and condition

Process Assessment

- Gap analysis of 12 key lean concepts
- In plant observations of manufacturing operations
- In plant observations of material processing and potential waste points

Who does the Assessments?

- The energy assessments, process assessments, and carbon footprints for smaller manufacturing operations and businesses are typically done by WVMEP staff.
- The energy assessments and carbon footprints for larger manufacturing operations are typically done by WVU personnel under the IOF or IAC programs.

What type of operations are eligible?

- Any and all manufacturers in West Virginia.
 - We have conducted assessments for food producers, equipment shops, wood shops, assembly operations, plastics and metal processing.
 - Companies from 5 to over 200 employees
 - Energy use cost from thousands to millions

Typical Finds

- Most businesses are spending way too much on lighting.
- Most HVAC systems are inefficient, or incorrectly sized, and waste energy.
- Most buildings are under insulated and lose substantial amounts of heat
- Many refrigeration systems need upgraded and are not recovering heat energy
- Most equipment is operating with old electric motors and wasting energy

WV E3 Impacts

- In slightly less than 3 years we have conducted 42 assessments.
- Energy saving recommendations that would result in :
 - 7,274,967 KWH reduced
 - 103,231 mmBTU in natural gas
 - \$3,392,107 in processing/operations cost
 - 3,855,058 square feet covered

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- For follow up questions or more information please contact :
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